Application No.: 09/900,111

Office Action Dated: December 9, 2004

Amendments to the Specification:

Please replace the section on beginning on page 1, line 31 with the following rewritten section:

COBOL, Fortran, Basic, Pascal PASCAL programming language, C, C++, Lisp, Visual Basic VISUAL BASIC programming language, C# and many others.

Please replace the section on beginning on page 3, line 28 with the following rewritten section:

routines provided with programming languages such as Fortran, Basic, Pascal PASCAL programming language, C, C++, C#, etc.

Please replace the section on beginning on page 6, line 11 with the following rewritten section:

(OLE) software and Visual Basic VISUAL BASIC programming language versions 4.0, 5.0 and 6.0 contained some infrastructure that enabled primitive forms of binary versioning. Despite these efforts, developers have continued to be hampered in these versioning scenarios. Thus, there is a continued need to address these versioning shortcomings in a more robust manner.

Despite such early attempts, most languages do not support binary compatibility at all, and many do little to facilitate source compatibility. In fact, some languages contain flaws that make it impossible, in general, to evolve a class over time without breaking at least some client code. OLE 2.0 and Visual Basic VISUAL BASIC programming language versions 4.0/5.0/6.0 provided some limited support for binary versioning, none of which support provided an adequate solution to the versioning problems created by modern proliferation and evolution of class libraries and the like.

Please replace the section on beginning on page 15, line 7 with the following rewritten section:

DOCKET NO.: MSFT-0572/160077.01

Application No.: 09/900,111

Office Action Dated: December 9, 2004

Software may be designed using many different methods, including object-oriented programming methods. C++, Java JAVA programming language, etc. are examples of common object-oriented programming languages that provide functionality associated with object-oriented programming.

Please replace the section on beginning on page 15, line 21 with the following rewritten section:

In exemplary embodiments of custom attributes as described herein, the present invention is described in connection with the C# programming language and CLR systems. However, one of ordinary skill in the art will readily recognize that the versioning techniques of the present invention may be implemented with any programming language, such as Fortran, Pascal, Visual Basic, PASCAL programming language, VISUAL BASIC programming language, C, C++, Java JAVA programming language, etc.

C# is a simple, modern, object oriented, and type-safe programming language derived from C and C++. C#, pronounced "C sharp" like the musical note, is firmly planted in the C and C++ family tree of languages, and will be familiar to programmers having an understanding of the C and C++ programming languages, and other object-oriented programming languages.

Generally, C# combines the high productivity of Visual Basic VISUAL BASIC programming language and the raw power of C++, and provides many unique programming features as well.

C# is provided as part of Microsoft Visual Studio MICROSOFT VISUAL STUDIO 7.0. In addition to C#, Visual Studio VISUAL STUDIO supports Visual Basic VISUAL BASIC, Visual VISUAL C++, and the scripting languages VBScript VBSCIRPT scripting language and JScript JSCRIPT scripting language. All of these languages provide access to the Microsoft .NET platform, which includes a common execution engine and a rich class library. The Microsoft .NET platform defines a Common Language Subset (CLS), a sort of lingua franca that ensures seamless interoperability between CLS-compliant languages and class libraries. For C# developers, this means that even though C# is a new language, it has complete access to the same

PATENT

DOCKET NO.: MSFT-0572/160077.01

Application No.: 09/900,111

Office Action Dated: December 9, 2004

rich class libraries that are used by seasoned tools such as Visual Basic VISUAL BASIC programming language and Visual VISUAL C++ programming language. C# itself may not include a class library. The customizable attributes of the present invention are supported in all of Microsoft's .NET languages, and .NET itself provides literally hundreds of attribute classes.

Please replace the section on beginning on page 34, line 7 with the following rewritten section:

As mentioned above, while exemplary embodiments of the present invention have been described in connection with C# and CLR, the underlying concepts may be applied to any programming language for which it would be desirable to have versioning as described herein. Thus, versioning in accordance with the present invention may be implemented with any programming language, such as Fortran, Pascal, Visual Basic, PASCAL programming language, VISUAL BASIC programming language, C, C++, Java JAVA programming language, etc.